

AMENDMENTS TO THE CLAIMS:

Replace the claims with the following rewritten listing.

1. (Currently Amended) Light illumination apparatus comprising:
 - at least one exposure head ~~(12)~~ and;
 - at least two light modulating arrangements ~~(20)~~,
 - each of said two light modulating arrangements ~~(20)~~ comprising a spatial light modulator ~~(31, 32)~~ and an associated light emitter arranged for illumination of an illumination surface ~~(15)~~ via said spatial light modulator ~~(31, 32)~~;
 - each of said two light modulating arrangements ~~20~~ being digitally controlled;
 - said apparatus further comprising means for performing a relative movement between said at least one exposure head and said illumination surface ~~(15)~~ in at least one direction ~~(x,y)~~.
2. (Currently Amended) Light illumination apparatus according to claim 1, wherein said at least two light modulating arrangements are arranged on ~~the same~~ a single exposure head ~~(12)~~.
3. (Currently Amended) Light illumination apparatus according to claim 1 ~~or~~ 2, wherein said relative movement is a scanning movement.
4. (Currently Amended) Light illumination apparatus according to ~~any of the~~ claims 1-3, wherein said relative movement is established by moving the at least one exposure head ~~(12)~~ relative to said illumination surface ~~(15)~~.
5. (Currently Amended) Light illumination apparatus according to ~~any of the~~ claims 1-4, wherein said relative movement is established by moving said illumination surface ~~(15)~~ relative to the at least one exposure head ~~(12)~~.

6. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1-5~~, wherein the at least one exposure head ~~(12)~~ comprises the two light modulating arrangements.

7. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1-6~~, wherein said light modulating arrangements are arranged on at least two different exposure heads ~~(60, 61)~~ and where said exposure heads ~~(60, 61)~~ perform scanning movements over the illumination surface.

8. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1-7~~, wherein said spatial light modulators ~~being~~are arranged so as to illuminate at least two substantially separate sub-areas ~~(SUB1, SUB2)~~ of said illumination surface ~~(15)~~.

9. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1-8~~, wherein said spatial light modulating arrangements ~~(31, 32)~~ ~~being~~are aligned so that ~~the~~ rows of both light modulators are parallelly oriented.

10. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 9~~, wherein said spatial light modulating arrangements ~~(20)~~ ~~being~~are aligned so that ~~the~~ neighboring rows of the at least two spatial light modulators are positioned substantially so that ~~the~~a distance ~~(DN)~~ between the at least two neighboring rows of the at least two spatial light modulators ~~are~~is substantially the same as ~~the~~a distance ~~(DR)~~ between ~~the~~ rows of the individual light modulators.

11. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 10~~, wherein ~~the~~an "x-projection" ~~(D1)~~ of ~~the~~a distance between ~~the~~ centers of ~~the~~ at least two ~~of the~~ spatial light modulators ~~being~~is less than approximately 200 millimeters; ~~preferably less than 150 millimeters, preferably substantially 120 millimeters.~~

12. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 11~~, wherein ~~the~~ “y-projection” ~~(D2)~~ of ~~the~~ distance between the centers of ~~the two~~ of the spatial light modulators ~~being~~is less than approximately 50 millimeters, ~~preferably less than 35 millimeters, preferably substantially 25.6 millimeters or 20.5 millimeters when applying SXGA, and XGA respectively.~~

13. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 12~~, wherein ~~the~~ distance between the centers of ~~the two~~ of the spatial light modulators ~~being preferably~~is substantially 122.7 millimeters or 121.73 millimeters when applying SXGA, and XGA, respectively.

14. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 13~~, wherein said exposure head ~~comprising~~es cooling means ~~(216, 217).~~

15. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 14~~, wherein each spatial light modulating arrangement ~~comprising~~es individual cooling means ~~(216, 217).~~

16. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 15~~, wherein said substantially separate sub-areas (SUB1, SUB2) ~~comprising~~comprise neighboring surfaces of said illumination surface ~~(15).~~

17. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 16~~, wherein said at least one direction ~~being~~is substantially transverse to a relative movement of said illumination surface ~~(15).~~

18. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 17~~, wherein said at least one direction ~~establishes~~es that an illuminated pixel on said illumination surface is illuminated by means of a least two light modulators of said spatial light modulator.

19. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 18~~, wherein said at least one direction establishesing that an illuminated pixel on said illumination surface is illuminated by means of at least one modulator row of said spatial light modulator.

20. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 19~~, wherein said exposure head ~~being~~is movable in at least two directions with respect to said illumination surface.

21. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 20~~, wherein said light emitter comprisesing a light source ~~(210)~~.

22. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 21~~, wherein said light emitter comprisesing at least one light emitting end of an optical guide coupled to a light source.

23. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 22~~, wherein said light emitter comprisesing a lamp.

24. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 23~~, wherein said light emitter comprisesing an a LED matrix.

25. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 24~~, wherein said spatial light modulator comprisesing a DMD chip.

26. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 25~~, wherein said spatial light modulator comprisesing a micro-mechanical transmissive light modulator.

27. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 26~~, wherein said illumination surface comprisesing a printing plate.

28. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 27~~, wherein said illumination surface comprisesing a light sensitive material.

29. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 28~~, wherein the exposure head is adapted for scanning in two transverse opposite directions.

30. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 29~~, wherein ~~the~~an x-direction between centers of the spatial light modulating arrangement is less than 150 mm, ~~preferably less than 121 mm~~.

31. (Currently Amended) Light illumination apparatus according to ~~any of the claims 1 to 30~~, wherein the x-direction between centers of the spatial light modulating arrangement is substantially ~~0 (zero)~~.

32. (Currently Amended) Method of illuminating an illumination surface ~~(15)~~, whereby at least two light modulating arrangements ~~(20)~~ arranged on at least one exposure head, each comprising a spatial light modulator ~~(31, 32)~~ illuminate ~~the~~an illumination surface ~~(15)~~ by a scanning movement.

33. (Currently Amended) Method of illuminating an illumination surface according to claim 32, whereby said at least two light modulating arrangements ~~(31, 32)~~ are arranged on ~~the same a single~~ exposure head ~~(30a)~~.

34. (Currently Amended) Method of illuminating an illumination surface according to claim 32, whereby said at least two light modulating arrangements ~~(62,63)~~ are arranged on different free-running exposure heads ~~(60,61)~~.

35. (Currently Amended) Method of illuminating an illumination surface, whereby the illumination is performed by ~~means of~~ a light illumination apparatus according to ~~any of the~~ claims 1-31.